KENTUCKY

HIGHWAY SAFETY IMPROVEMENT PROGRAM

2023 ANNUAL REPORT

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Table of Contents

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23 U.S.C. 148(h)(4) states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for any purpose relating to this section[HSIP], shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location identified or addressed in the reports, surveys, schedules, lists, or other data.”

23 U.S.C. 407 states “Notwithstanding any other provision of law, reports, surveys, schedules, lists, or data compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144, and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.”

Executive Summary

Kentucky’s Highway Safety Improvement Program (HSIP) funds are administered by staff within the Central Office of the Kentucky Transportation Cabinet (KYTC), Division of Traffic Operations, Traffic Safety Branch. Each KYTC Highway District has an HSIP Coordinator that acts as a liaison between, and works closely with, Central Office staff and District staff to organize project team meetings, deliver required project documentation, and conduct a field investigation and/or Road Safety Assessment (RSA) of potential improvement locations. The RSA teams are multi-disciplinary and represent the following highway functions: planning, highway design, traffic operations, maintenance, and construction. The Cabinet also encourages members from local Area Development Districts (ADDs), Metropolitan Planning Organizations (MPOs), and local law enforcement agencies to participate in the process.

Kentucky's HSIP supports Kentucky's Strategic Highway Safety Plan (SHSP) and its vision to improve highway safety in Kentucky such that those traveling on roads in the Commonwealth - every person, every trip - arrive at their destination unharmed. The mission of Kentucky’s SHSP is, "to enhance the lives of those who use Kentucky's transportation system by preventing crashes that result in deaths and serious injuries." In conformance with program guidelines, the HSIP seeks to adhere to the SHSP through a data-driven approach for funding safety improvements. The methodology used to prioritize and select HSIP-funded projects during the time period of this report has been threefold: network screening using Safety Performance Functions (SPFs) with Empirical Bayes (EB) adjustment, systemic analysis, and cost effectiveness analysis (e.g. benefit-cost).

The SPFs used for network screening by Kentucky’s HSIP are state-specific SPFs, updated annually, and developed using Kentucky’s roadway data, traffic volume data, and most recent 5 years of crash data. Further, for each facility type analyzed, multiple state-specific SPFs are developed; one SPF for each of the following crash severities: KA, B, C, and O. The result of this tailored network screening approach produces severity-specific Excess Expected Crash (EEC) values for KA, B, C, and O crashes, for each segment and/or each intersection in the analysis. The severity-specific EEC values for each segment and intersection are multiplied by average crash costs for KA, B, C, and O crashes and then summed to determine a value Kentucky calls the Cost of Excess Expected Crashes. This value represents the comprehensive economic impact of the excessive crashes occurring at each segment or intersection.

The systemic analysis method starts by identifying a focus crash type and filtering the crash data to only include the focus crash type. Roadway data is then analyzed to identify which facility type has an overrepresentation of the focus crash type. Once the focus facility type is determined, additional analysis is conducted to identify the roadway attributes along the focus facility type that have a strong correlation with the focus crash type. The roadway attributes identified are know as risk factors. Once the focus crash type's risk factors are determined, roadway segments and intersections are prioritized where the locations with the highest number of risk factors have the highest priority. Potential projects are then reviewed to identify low-cost, effective countermeasures that are likely to mitigate and/or prevent the focus crash type.

The cost effectiveness method is typically used to justify projects that may not have been identified via network screening or systemic analysis, but are locations that have been identified by District staff or local representatives as having safety improvement opportunities. If the projects are shown to be cost effective, then those projects are considered along with the projects identified via network screening and systemic analysis. Further, cost effectiveness analyses are used during project development to aid in decision-making when multiple improvements and/or countermeasures appear to be viable options for the identified safety challenges.

It is also noteworthy that Kentucky occasionally combines elements of the systemic approach into Kentucky’s network screening process. For example, through systemic analysis it has been found that roadway departure fatalities in Kentucky are most likely to occur on facilities classified as rural, 2-lane, undivided, with a speed

limit of 50 mph or greater. As such, Kentucky's HSIP has developed state specific SPFs that only incorporate and analyze roadway departure crashes occurring on facilities classified as rural, 2-lane, undivided, with a speed limit of 50 mph or greater. This allows Kentucky to focus on the portion of the network most at risk for roadway departure fatalities, but also prioritizes sites using state of the art state-specific SPFs with EB adjustment.

Effectiveness evaluations were performed and benefit/costs were calculated, with results presented for the following 4 types of systemic improvements:

GUARDRAIL

Wilcoxon Signed-Rank Test for "before and after shift in proportions of road departure crashes" – no statistically significant change.

Benefit/Cost analysis results using observed crashes; 9.30:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

HIGH-FRICTION SURFACE TREATMENTS

Wilcoxon Signed-Rank Test for "before and after shift in proportions of wet-weather road departure crashes" – no statistically significant change.

Benefit/Cost analysis results using expected crashes from empirical Bayes analysis; 4.65:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

SHOULDER WIDENING

Wilcoxon Signed-Rank Test for "before and after shift in proportions of road departure crashes" – no statistically significant change.

Benefit/Cost analysis results using observed crashes; 3.77:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

ROAD DEPARTURE CORRIDORS

Wilcoxon Signed-Rank Test for "before and after shift in proportions of road departure crashes" –statistically significant decrease at the 99% confidence level.

Benefit/Cost analysis results using observed crashes; 5.37:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

HSM methods are used to evaluate and calculate benefits and costs for systemic safety improvements (guardrail, high-friction surface treatments, shoulder widening, and road departure corridors).

Introduction

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. As per 23 U.S.C. 148(h) and 23 CFR 924.15, States are required to report annually on the progress being made to advance HSIP implementation and evaluation efforts. The format of this report is consistent with the HSIP Reporting Guidance dated December 29, 2016 and consists of five sections: program structure, progress in implementing highway safety improvement projects, progress in achieving safety outcomes and performance targets, effectiveness of the improvements and compliance assessment.

Program Structure

Program Administration

Describe the general structure of the HSIP in the State.

Kentucky’s Highway Safety Improvement Program (HSIP) funds are administered by staff within the Central Office of the Kentucky Transportation Cabinet (KYTC), Division of Traffic Operations, Traffic Safety Branch. Projects are prioritized and selected through a variety of methods. One such method is network screening using state-specific Safety Performance Functions (SPFs) with Empirical Bayes (EB) adjustment performed by the Kentucky Transportation Center (KTC) at the University of Kentucky. Another method the systemic analysis of different focus crash types (e.g. roadway departure, intersection, VRU, etc) to identify focus facilities, risk factors, and ultimately projects that could address portions of the network most at risk for fatal and serious injury crashes. The last method involves identifying safety risks and potential improvements via Road Safety Assessments (RSAs) performed by the Safety Circuit Rider Program, LTAP staff, local agencies, consultant staff, and/or District personnel. Each of KYTC's twelve Highway Districts has an HSIP Coordinator that works closely with Central Office and District Personnel. District HSIP Coordinators act as a liaison between, and works closely with, Central Office HSIP staff and District staff to organize project team meetings, deliver required project documentation, and conduct a field investigation and/or a Road Safety Assessment (RSA) of potential improvement locations. Project Development is achieved either in conjunction with in-house staff at the District level or by engineering consultants who have been selected through a competitive process based their knowledge, skills, and abilities related to identifying safety challenges, brainstorming and evaluating the costs, benefits, and impacts of potential solutions, and the efficient development of project plans, specifications, and estimates. HSIP projects are let to construction through the Division of Construction Procurement; implementation, inspection, and administration of the construction phase of HSIP projects is performed by District Construction staff. Evaluation of HSIP projects is performed through a formal partnership with KTC.

Where is HSIP staff located within the State DOT?

Operations

How are HSIP funds allocated in a State?

- Central Office via Statewide Competitive Application Process
- Formula via Districts/Regions
- SHSP Emphasis Area Data

Kentucky's HSIP implements a variety of HSIP Initiatives based on and in support of the Emphasis Areas and strategies within Kentucky's Strategic Highway Safety Plan (SHSP). The process of allocating funding begins

with first dividing the funding into 4 primary categories: Roadway Departure, Intersections, Vulnerable Road Users, and Funding to Support Implementation of the HSIP and SHSP. The process of dividing funds over these categories begins by carving out the funding needed for the category Funding to Support Implementation of the HSIP and SHSP. The amount is based on the historical costs for administration of Kentucky's HSIP, including Planning Studies and Preliminary Engineering. Once the Funding to Support Implementation of the HSIP and SHSP has been taken off the top, the funding for the categories of Roadway Departure, Intersections, and Vulnerable Road Users is based on the proportion of statewide fatalities and serious injuries within these categories. From there, a variety of HSIP Initiatives are brainstormed to further sub-divide the funding. The projects implemented through some HSIP Initiatives are prioritized and selected by network screening and/or systemic analysis. For other HSIP Initiatives, projects are prioritized and selected through a competitive application process.

Describe how local and tribal roads are addressed as part of HSIP.

The Commonwealth of Kentucky does not have tribal roads. The Safety Circuit Rider Program continues to function as the primary means of identifying and implementing projects on local roads through the HSIP. The focus of this program is to provide technical assistance to improve safety on local roads and streets. While the free technical advice offered by the Safety Circuit Rider is available to every community across the Commonwealth, the program selects six focus counties on an annual cycle for focused training covering low-cost safety improvements. The 2023 selected counties are Adair, Campbell, Carter, Grant, Marshall, and Simpson. Improvements discussed during the free training are improving water runoff and drainage, repairing shoulder drop off and width, removing fixed objects such as trees and stumps, clearing vegetation around signs and intersections, and installation of horizontal alignment signs and other signs important for highway safety. Additionally, the Safety Circuit Rider assists staff within each focus with the execution of two Road Safety Assessments (RSAs). Funding is provided to cover the signing needs identified during the RSAs, with the potential for competitive funding for other improvements identified through the RSAs. Aside from these targeted counties, the Safety Circuit Rider Program provides a one-day training course designed to provide communities with practical and effective ways to mainstream safety into their day-to-day activities and project development process. This course is offered for free at selected areas throughout Kentucky.

Please note that the network screening process for several Road Departure initiatives includes all local roadways that have a functional classification of Minor Collector and above. Furthermore, the Statewide Intersection database used for the network screening process for Intersection initiatives includes all intersections within the state, including Local Road @ Local Road intersections, regardless of functional classification. If any local road segment or intersection screens high enough to be considered for a project, the HSIP, Safety Circuit Rider, LTAP, and/or District staff work with the appropriate local government staff to select and implement the identified projects.

In late 2018, Kentucky's HSIP began a partnership with the Louisville Metro Government to create a Road Safety Plan. This effort evolved into the Vision Zero Louisville Safety Report, which was published in April of 2021. Several projects identified in the Vision Zero Louisville Safety Report have been implemented or are currently under development and expected to be under construction soon. Additionally, Kentucky's HSIP is in the process of wrapping up the development of a Road Safety Plan for the city of Lexington. This effort is very similar to the Vision Zero Louisville initiative and Kentucky's HSIP anticipates identifying, prioritizing, selecting, and implementing HSIP-funded projects with the city of Lexington in the near future.

Kentucky’s HSIP staff, with assistance from Kentucky's LTAP recently finished with the development of three pilot Local Road Safety Plans (LRSPs). The next steps are to finalize the application process and begin developing the plans, specifications, and estimates necessary to move selected projects into the construction phase. The Kentucky LTAP is leading the development of the application process and project development. The LRSPs and the projects from the LRSPs are focused on rural, locally owned roadways, with an emphasis on systemic low-cost safety countermeasures. In August of 2022, the Kentucky LTAP hosted a LRSP Peer Exchange, that included agency representatives from nine counties and four cities. The two-day peer

exchange included presentations by representatives from the FHWA and Kentucky Office of Highway Safety, testimonials by representatives from two of the three pilot LRSP counties, instructions on how to develop an LRSP, demonstrations on self-help resources provided by the Kentucky LTAP for developing an LRSP, and discussions on the resources available for providing funding for the project identified by LRSPs. The Kentucky LTAP will build on the success of these initial LRSP efforts and plans to host additional LRSP Peer Exchanges in the future. An important next step for local road safety in Kentucky will be the selection and implementation of projects identified in LRSPs. A few projects, such High Friction Surface Treatment, have were selected and implemented during this reporting period. Kentucky’s HSIP anticipates that additional projects will be ready to let to construction during fiscal year 2024. The goal of Kentucky’s HSIP is to continue the growth of the program and begin dedicating a larger portion of Kentucky's HSIP apportionment until the funding for Kentucky's local road safety program is proportional to the percentage of fatalities occurring on locally owned roadways.

Identify which internal partners (e.g., State departments of transportation (DOTs) Bureaus, Divisions) are involved with HSIP planning.

- Design
- Districts/Regions
- Governors Highway Safety Office
- Local Aid Programs Office/Division
- Maintenance
- Operations
- Planning
- Traffic Engineering/Safety

Describe coordination with internal partners.

Kentucky's HSIP funds are administered by staff within the Central Office of the Kentucky Transportation Cabinet (KYTC), Division of Traffic Operations, Traffic Safety Branch. The planning and project development processes involve collaboration with internal partners in the Divisions of Planning, Design, Traffic Operations, and Maintenance, as warranted by subject matter. The implementation process is performed in collaboration with the Divisions of Construction Procurement and Construction. Open communication is maintained with all internal partners to develop collaborative solutions on all HSIP endeavors. As an example of this open communication, HSIP staff coordinates closely with the Division of Maintenance to look for opportunities to bundle HSIP funded improvement projects with Maintenance funded resurfacing projects. Additionally, the HSIP has begin partnering with the Division of Maintenance, Materials, and Highway Design concerning the collection, analysis, and utilization of continuous pavement friction data, one of the new FHWA Proven Safety Countermeasures.

HSIP projects are selected and prioritized based on their correlation with Kentucky's SHSP. Kentucky published a new SHSP in early 2020. There are presently 6 emphasis areas within the SHSP and efforts are made to implement projects consistent with the goals and objectives of the SHSP. The Kentucky Transportation Cabinet has established taskforce teams for each emphasis area and the HSIP will be active participants on each team.

Identify which external partners are involved with HSIP planning.

- Academia/University
- FHWA
- Law Enforcement Agency
- Local Government Agency
- Local Technical Assistance Program

- Regional Planning Organizations (e.g. MPOs, RPOs, COGs)
- Other-Kentucky Transportation Center

Describe coordination with external partners.

The Kentucky Transportation Center (KTC) is housed within the University of Kentucky and provides a variety of technical assistance, such as network screening and the evaluation of Kentucky's HSIP Initiatives. The HSIP has also partnered with researchers at the University of Louisville and Western Kentucky University to investigate a variety of safety-related items, such as CMV-related crashes, distracted driving-related crashes, motorcycle crashes, incorporating virtual reality technology during project development, and evaluating roundabouts and Restricted Crossing U-Turn (RCUT) intersections that have been implemented across Kentucky.

FHWA-KY Division Office representatives routinely and frequently collaborate with the administration of Kentucky's HSIP.

Metropolitan Planning Organizations (MPOs) provide feedback during project identification and modify their Transportation Improvement Plans (TIPs) when applicable.

Kentucky's Local Technical Assistance Program (LTAP) is housed at the University of Kentucky. The LTAP assists with the administration ad implementation of the Safety Circuit Rider Program, as well as performing the safety analysis for identifying and selecting the six focus counties for the annual Safety Circuit Rider Program and performing the subsequent RSAs. In addition, KTC & LTAP both provide training resources and programs for the Cabinet through the HSIP. Lastly, the local road safety initiative being led by LTAP has produced Local Road Safety Plans (LRSPs) for the three pilot counties of Boone, Boyle, and Crittenden. Additional LRSPs are under development, with the goal of producing LRSPs for many more counties in the upcoming years.

Program Methodology

Does the State have an HSIP manual or similar that clearly describes HSIP planning, implementation and evaluation processes?

Yes

Kentucky's HSIP completed an update to the HSIP Investment Plan in 2022.

Select the programs that are administered under the HSIP.

- Intersection
- Local Safety
- Median Barrier
- Roadway Departure
- Sign Replacement And Improvement
- Skid Hazard

Program: Intersection

Date of Program Methodology:6/30/2022

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes

- All crashes
- Fatal and serious injury crashes only

Exposure

- Traffic
- Volume

Roadway

- Functional classification

What project identification methodology was used for this program?

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

Yes

How are projects under this program advanced for implementation?

- Competitive application process
- Other-Prioritized list

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Cost Effectiveness:1

Program: Local Safety

Date of Program Methodology:6/30/2022

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes

- All crashes
- Fatal crashes only
- Fatal and serious injury crashes only

Exposure

- Traffic
- Volume

Roadway

- Median width
- Horizontal curvature
- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Crash frequency
- Crash rate
- Equivalent property damage only (EPDO Crash frequency)
- Excess expected crash frequency with the EB adjustment
- Excess proportions of specific crash types
- Level of service of safety (LOSS)
- Probability of specific crash types

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

No

Describe the methodology used to identify local road projects as part of this program.

For Kentucky's two largest cities, Louisville and Lexington, road safety plans have been developed that covers the entire county these cities are within and include analysis of all roadways, except interstate routes, regardless of roadway ownership. For Kentucky's rural counties, a few Local Road Safety Plans have been developed (with many more LRSPs under development) that focus on the safety challenges and safety improvement opportunities along county-owned routes.

How are projects under this program advanced for implementation?

- Competitive application process
- Other-Individual development

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Cost Effectiveness:1
Other-Individual development:2

Program: Median Barrier

Date of Program Methodology:6/30/2022

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes

- All crashes
- Fatal and serious injury crashes only

Exposure

- Traffic
- Volume

Roadway

- Median width
- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Ranking based on net benefit:1

Program: Roadway Departure

Date of Program Methodology:6/30/2022

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes

- All crashes
- Fatal and serious injury crashes only

Exposure

- Traffic
- Volume
- Lane miles

Roadway

- Horizontal curvature
- Functional classification
- Roadside features

What project identification methodology was used for this program?

- Crash frequency
- EPDO crash frequency with EB adjustment
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Level of service of safety (LOSS)

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

Yes

How are projects under this program advanced for implementation?

- Other-Prioritized list
- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Cost Effectiveness:1

Program: Sign Replacement And Improvement

Date of Program Methodology:5/27/2020

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes

- All crashes

Exposure

- Volume

Roadway

- Horizontal curvature
- Functional classification

What project identification methodology was used for this program?

- Crash frequency
- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment
- Excess proportions of specific crash types
- Level of service of safety (LOSS)
- Probability of specific crash types

Are local roads (non-state owned and operated) included or addressed in this program?

Yes

Are local road projects identified using the same methodology as state roads?

No

Describe the methodology used to identify local road projects as part of this program.

Sign Replacement and Improvement on locally owned roads are handled through the Safety Circuit Rider Program

How are projects under this program advanced for implementation?

- Other-Prioritized list
- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:2
Cost Effectiveness:1

Program: Skid Hazard

Date of Program Methodology:6/30/2022

What is the justification for this program?

- Addresses SHSP priority or emphasis area

What is the funding approach for this program?

Funding set-aside

What data types were used in the program methodology?

Crashes

- All crashes
- Fatal and serious injury crashes only

Exposure

- Traffic
- Volume

Roadway

- Horizontal curvature
- Functional classification

What project identification methodology was used for this program?

- Excess expected crash frequency using SPFs
- Excess expected crash frequency with the EB adjustment

Are local roads (non-state owned and operated) included or addressed in this program?

No

Are local road projects identified using the same methodology as state roads?

How are projects under this program advanced for implementation?

- Other-Prioritized list based on expected crash reduction after friction treatment
- selection committee

Select the processes used to prioritize projects for implementation. For the methods selected, indicate the relative importance of each process in project prioritization. Enter either the weights or numerical rankings. If weights are entered, the sum must equal 100. If ranks are entered, indicate ties by giving both processes the same rank and skip the next highest rank (as an example: 1, 2, 2, 4).

Rank of Priority Consideration

Available funding:3

Ranking based on net benefit:1
Cost Effectiveness:2

What percentage of HSIP funds address systemic improvements?

50

HSIP funds are used to address which of the following systemic improvements?

- Add/Upgrade/Modify/Remove Traffic Signal
- Cable Median Barriers
- Clear Zone Improvements
- Horizontal curve signs
- Install/Improve Pavement Marking and/or Delineation
- Install/Improve Signing
- Upgrade Guard Rails

What process is used to identify potential countermeasures?

- Crash data analysis
- Data-driven safety analysis tools (HSM, CMF Clearinghouse, SafetyAnalyst, usRAP)
- Engineering Study
- Road Safety Assessment
- SHSP/Local road safety plan
- Stakeholder input

Kentucky's HSIP does not utilize the SafetyAnalyst tool.

Kentucky's HSIP recently developed the Vision Zero Louisville Safety Report and a road safety plan for the city of Lexington. These two plans include all roads, except for interstates for the counties of Jefferson (Louisville) and Fayette (Lexington). Both of these plans utilize data-driven safety tools and other methods to identify safety challenges and potential countermeasures.

Kentucky's HSIP recently developed Load Road Safety Plans (LRSPs) for several counties. Additional LRSPs are under development for several more counties, with plans for many more counties in the future. Local agencies can submit potential projects through an application process. The LRSP application process is new and still evolving with assistance from Kentucky's LRAP.

Does the State HSIP consider connected vehicles and ITS technologies?

Yes

Describe how the State HSIP considers connected vehicles and ITS technologies.

Kentucky's HSIP continues to explore the potential benefits of connected vehicles and ITS technologies in regards to the goals and priorities of Kentucky's SHSP. Although Kentucky's HSIP has not dedicated funding directly to a CAV and ITS initiative, Kentucky's HSIP, in partnership with the city of Louisville, is currently exploring the uses and benefits of various ITS solutions to assist with data collection, problem identification, and countermeasure evaluation.

Does the State use the Highway Safety Manual to support HSIP efforts?

Yes

Please describe how the State uses the HSM to support HSIP efforts.

Kentucky's HSIP has worked with the Kentucky Transportation Center (KTC) to improve the data analytics process utilizing the procedures and information found in the Highway Safety Manual (HSM). Specifically, KTC incorporates network screening techniques from Section B of the HSM and develops state-specific Safety Performance Functions (SPFs) adjusted with the Empirical Bayes (EB) method to identify segments and intersections most likely to see a safety benefit. In addition, HSM Part C methods are used for evaluation and benefit-cost analysis of safety improvements and initiatives.

Describe other aspects of the HSIP methodology on which the State would like to elaborate.

Kentucky's HSIP has increased efforts towards identifying and developing Innovative Intersection projects, such as Mini-Roundabouts and Restricted Crossing U-Turn (RCUT) intersections. Twenty-six RCUTs have been constructed and six are currently in the project development process. Seven Mini-Roundabouts have been constructed, seven are under construction, and five are in the project development process. Furthermore, Kentucky's HSIP is working in conjunction with Western Kentucky University to evaluate roundabouts and RCUTs in Kentucky and develop a list of potential intersections that would be good candidates for conversion to an RCUT or roundabout.

Project Implementation

Funds Programmed

Reporting period for HSIP funding.

State Fiscal Year

Enter the programmed and obligated funding for each applicable funding category.

FUNDING CATEGORY	PROGRAMMED	OBLIGATED	% OBLIGATED/PROGRAMMED
HSIP (23 U.S.C. 148)	$53,403,157	$35,724,967	66.9%
HRRR Special Rule (23 U.S.C. 148(g)(1))	$0	$0	0%
VRU Safety Special Rule (23 U.S.C. 148(g)(3))	$0	$0	0%
Penalty Funds (23 U.S.C. 154)	$0	$0	0%
Penalty Funds (23 U.S.C. 164)	$0	$0	0%
RHCP (for HSIP purposes) (23 U.S.C. 130(e)(2))	$0	$0	0%
Other Federal-aid Funds (i.e. STBG, NHPP)	$0	$0	0%
State and Local Funds	$0	$0	0%
Totals	$53,403,157	$35,724,967	66.9%

How much funding is programmed to local (non-state owned and operated) or tribal safety projects?

$1,779,717

How much funding is obligated to local or tribal safety projects?

$1,779,717

How much funding is programmed to non-infrastructure safety projects?

$2,631,550

How much funding is obligated to non-infrastructure safety projects?

$2,631,550

How much funding was transferred in to the HSIP from other core program areas during the reporting period under 23 U.S.C. 126?

$0

How much funding was transferred out of the HSIP to other core program areas during the reporting period under 23 U.S.C. 126?

$0

Discuss impediments to obligating HSIP funds and plans to overcome this challenge in the future.

There are no current impediments to obligating Kentucky's HSIP funds.

Describe any other aspects of the State's progress in implementing HSIP projects on which the State would like to elaborate.

In previous HSIP Annual Reports it was noted there was surplus of HSIP funds that had not been obligated. Through aggressive implementation of Kentucky's HSIP Investment Plan the program has progressed toward full annual obligation of HSIP funds.Furthermore, the HSIP has developed a backlog of construction-ready projects for when additional funding becomes available.

General Listing of Projects

List the projects obligated using HSIP funds for the reporting period.

PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
9010474	Roadway signs and traffic control	Roadway signs (including post) - new or updated	36	Interchanges	$624008	$624008	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0		State Highway Agency	Data Analysis		Intersection Improvements
8547012	Intersection traffic control	Modify traffic signal – modernization/replacement	0.0499999999999998	Miles	$52880	$52880	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,546	35	State Highway Agency	Systemic	Pedestrians	
7873001	Intersection traffic control	Modify control – Compact/Mini-roundabout	0.07	Miles	$230336	$230336	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0		City or Municipal Highway Agency	Systemic		Intersection Improvements
7873002	Intersection traffic control	Modify control – Compact/Mini-roundabout	0.0700000000000001	Miles	$233748	$233748	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0		City or Municipal Highway Agency	Systemic		Intersection Improvements
8777011	Intersection geometry	Innovative Intersection (e.g. MUT, RCUT, QR)	0.0739999999999998	Miles	$627331	$627331	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	11,442	45	State Highway Agency	Spot		Intersection Improvements
5125017	Intersection traffic control	Systemic improvements – signal-controlled	0.0999999999999996	Miles	$129701	$129701	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	12,861	55	State Highway Agency	Systemic		Intersection Improvements
8732019	Intersection geometry	Intersection geometry - other	0.0999999999999996	Miles	$32077	$32077	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	12,681	35	State Highway Agency	Systemic		Intersection Improvements
9010503	Roadway	Pavement surface – high friction surface	0.1	Miles	$93402	$93402	HSIP (23 U.S.C. 148)	Urban	Major Collector	12,965	35	State Highway Agency	Systemic		Intersection Improvements
321028	Intersection traffic control	Modify traffic signal – add backplates with retroreflective borders	0.100000000000001	Miles	$64860	$64860	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	21,815	45	State Highway Agency	Systemic		Intersection Improvements
1601029	Intersection traffic control	Modify traffic signal – add backplates with retroreflective borders	0.100000000000001	Miles	$16000	$16000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	20,335	40	State Highway Agency	Systemic		Intersection Improvements
8751018	Intersection traffic control	Modify traffic signal – modernization/replacement	0.13	Miles	$222200	$222200	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	2,338	35	State Highway Agency	Systemic		Intersection Improvements
1601028	Intersection traffic control	Systemic improvements – signal-controlled	0.13	Miles	$164083	$164083	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	5,186	45	State Highway Agency	Systemic		Intersection Improvements

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9010331	Intersection geometry	Intersection geometry - other	0.134	Miles	$208000	$208000	HSIP (23 U.S.C. 148)	Rural	Major Collector	4,489	45	State Highway Agency	Spot		Intersection Improvements
7550002	Intersection traffic control	Pavement markings	0.138	Miles	$87834	$87834	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Systemic		Intersection Improvements
9010440	Intersection traffic control	Modify control – Compact/Mini-roundabout	0.15	Miles	$474609	$474609	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0		City or Municipal Highway Agency	Systemic		Intersection Improvements
5078016	Roadway	Pavement surface – high friction surface	0.155	Miles	$37025	$37025	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,045	55	State Highway Agency	Spot	Roadway Departure	
9010495	Roadway	Pavement surface – high friction surface	0.18	Miles	$56925	$56925	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,422	55	State Highway Agency	Spot	Roadway Departure	
4181031	Intersection traffic control	Systemic improvements – signal-controlled	0.199999999999999	Miles	$8000	$8000	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	36,498	45	State Highway Agency	Systemic		Intersection Improvements
9010453	Roadside	Roadside grading	0.2	Miles	$109450	$109450	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,401	45	County Highway Agency	Spot	Roadway Departure	
9010441	Intersection traffic control	Modify control – Compact/Mini-roundabout	0.2	Miles	$589126	$589126	HSIP (23 U.S.C. 148)	Urban	Local Road or Street	0		City or Municipal Highway Agency	Systemic		Intersection Improvements
8547013	Intersection traffic control	Modify traffic signal – add backplates with retroreflective borders	0.2	Miles	$16350	$16350	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	25,546	35	State Highway Agency	Systemic		Intersection Improvements
9010499	Roadway	Pavement surface – high friction surface	0.2	Miles	$70465	$70465	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	19,567	45	State Highway Agency	Systemic	Roadway Departure	
9010509	Roadway	Pavement surface – high friction surface	0.2	Miles	$23197	$23197	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	23,787	45	State Highway Agency	Systemic		Intersection Improvements
9010490	Roadway	Pavement surface – high friction surface	0.200000000000017	Miles	$86735	$86735	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	168,682	55	State Highway Agency	Systemic	Roadway Departure	
9010501	Roadway	Pavement surface – high friction surface	0.225	Miles	$150671	$150671	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	

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9010494	Roadway	Pavement surface – high friction surface	0.24	Miles	$101819	$101819	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	
711128	Roadway	Pavement surface – high friction surface	0.241	Miles	$93110	$93110	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	50,858	55	State Highway Agency	Systemic	Roadway Departure	
8744005	Intersection geometry	Add/modify auxiliary lanes	0.25	Miles	$299913	$299913	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	12,339	35	State Highway Agency	Spot		Intersection Improvements
9010488	Roadway	Pavement surface – high friction surface	0.25	Miles	$142448	$142448	HSIP (23 U.S.C. 148)	Urban	Major Collector	1,577	35	County Highway Agency	Systemic	Roadway Departure	
9010492	Roadway	Pavement surface – high friction surface	0.25	Miles	$67661	$67661	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	24,927	45	State Highway Agency	Systemic		Intersection Improvements
9010510	Roadway	Pavement surface – high friction surface	0.25	Miles	$6863	$6863	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	18,906	45	State Highway Agency	Systemic		Intersection Improvements
8394005	Intersection geometry	Add/modify auxiliary lanes	0.259	Miles	$101660	$101660	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	0		State Highway Agency	Systemic		Intersection Improvements
9010496	Roadway	Pavement surface – high friction surface	0.26	Miles	$21373	$21373	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	
9010454	Roadside	Barrier- metal	0.272	Miles	$200000	$200000	HSIP (23 U.S.C. 148)	Rural	Multiple/Varies	611	55	State Highway Agency	Systemic	Roadway Departure	
5331017	Intersection geometry	Modify lane assignment	0.299999999999999	Miles	$210977	$210977	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	8,134	45	State Highway Agency	Systemic		Intersection Improvements
8725014	Roadway	Pavement surface – high friction surface	0.299999999999999	Miles	$122188	$122188	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	22,274	45	State Highway Agency	Systemic	Roadway Departure	
7912001	Intersection traffic control	Modify control – Modern Roundabout	0.3	Miles	$625000	$625000	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	7,321	45	State Highway Agency	Spot		Intersection Improvements
9010505	Roadway	Pavement surface – high friction surface	0.300000000000001	Miles	$140833	$140833	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	43,918	55	State Highway Agency	Systemic		Intersection Improvements

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9010508	Roadway	Pavement surface – high friction surface	0.32	Miles	$146250	$146250	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	1,880	55	State Highway Agency	Systemic	Roadway Departure	
5152006	Intersection traffic control	Modify control – Compact/Mini-roundabout	0.352999999999998	Miles	$1170000	$1170000	HSIP (23 U.S.C. 148)	Rural	Major Collector	6,299	55	State Highway Agency	Spot		Intersection Improvements
7861001	Intersection traffic control	Modify control – Modern Roundabout	0.372	Miles	$45839	$45839	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	3,929	55	State Highway Agency	Spot		Intersection Improvements
1192073	Access management	Access management - other	0.384	Miles	$533040	$533040	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	22,098	40	State Highway Agency	Systemic		Intersection Improvements
9010502	Roadway	Pavement surface – high friction surface	0.396	Miles	$70952	$70952	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0		State Highway Agency	Systemic		Intersection Improvements
9010514	Roadway	Pavement surface – high friction surface	0.4	Miles	$122062	$122062	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	
9010506	Roadway	Pavement surface – high friction surface	0.4	Miles	$136118	$136118	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	31,734	45	State Highway Agency	Systemic		Intersection Improvements
901059	Roadway	Pavement surface – high friction surface	0.41	Miles	$232200	$232200	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	9,530	55	State Highway Agency	Spot	Roadway Departure	
9010507	Roadway	Pavement surface – high friction surface	0.44	Miles	$122389	$122389	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,115	55	State Highway Agency	Systemic	Roadway Departure	
5203022	Intersection traffic control	Intersection signing –other	0.45	Miles	$18951	$18951	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	14,548	55	State Highway Agency	Systemic		Intersection Improvements
8777012	Intersection geometry	Intersection geometry - other	0.45	Miles	$547395	$547395	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	36,800	45	State Highway Agency	Systemic		Intersection Improvements
1551029	Intersection traffic control	Systemic improvements – signal-controlled	0.5	Miles	$146689	$146689	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	10,092	55	State Highway Agency	Systemic		Intersection Improvements
601210	Intersection geometry	Add/modify auxiliary lanes	0.5	Miles	$888923	$888923	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Other	16,923	45	State Highway Agency	Spot		Intersection Improvements

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451008	Intersection geometry	Innovative Intersection (e.g. MUT, RCUT, QR)	0.567999999999998	Miles	$58500	$58500	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	13,652	65	State Highway Agency	Spot		Intersection Improvements
5079004	Roadway	Superelevation / cross slope	0.600000000000001	Miles	$317304	$317304	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,027	55	State Highway Agency	Systemic	Roadway Departure	
9010518	Roadway	Pavement surface – high friction surface	0.600000000000001	Miles	$171869	$171869	HSIP (23 U.S.C. 148)	Urban	Major Collector	2,413	55	State Highway Agency	Systemic		Intersection Improvements
9010491	Roadway	Pavement surface – high friction surface	0.627	Miles	$37918	$37918	HSIP (23 U.S.C. 148)	Urban	Principal Arterial-Interstate	0		State Highway Agency	Systemic	Roadway Departure	
6411038	Intersection geometry	Innovative Intersection (e.g. MUT, RCUT, QR)	0.65	Miles	$73642	$73642	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	10,400	65	State Highway Agency	Spot		Intersection Improvements
451009	Intersection geometry	Innovative Intersection (e.g. MUT, RCUT, QR)	0.8	Miles	$27000	$27000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	12,186	65	State Highway Agency	Spot		Intersection Improvements
5214004	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	0.89	Miles	$775270	$775270	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,249	55	State Highway Agency	Systemic	Roadway Departure	
9010450	Miscellaneous	Transportation safety planning	1	Miles	$450000	$450000	HSIP (23 U.S.C. 148)	N/A	N/A	0			Data Analysis		Supports Implementation of HSIP and SHSP
9010469	Miscellaneous	Data analysis	1	Miles	$149400	$149400	HSIP (23 U.S.C. 148)	N/A	N/A	0			Data Analysis		Supports Implementation of HSIP and SHSP
1271125	Roadway	Roadway widening - add lane(s) along segment	1	Miles	$18000	$18000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	15,382	45	State Highway Agency	Spot		Intersection Improvements
8753010	Roadway delineation	Wider Edge Lines (6 inch markings)	1.326	Miles	$226471	$226471	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	28,638	45	State Highway Agency	Spot		Intersection Improvements
7872009	Roadway	Roadway narrowing (road diet, roadway reconfiguration)	1.458	Miles	$780211	$780211	HSIP (23 U.S.C. 148)	Urban	Minor Arterial	8,522	45	State Highway Agency	Spot	Pedestrians	
5074010	Roadway	Roadway - other	1.8	Miles	$9000	$9000	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,836	55	State Highway Agency	Systemic	Roadway Departure	

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5177005	Roadside	Roadside grading	2.184	Miles	$22500	$22500	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	6,108	55	State Highway Agency	Systemic	Roadway Departure	
5292007	Roadside	Roadside - other	2.214	Miles	$341477	$341477	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,138	55	State Highway Agency	Systemic	Roadway Departure	
5038125	Roadway	Roadway - other	3.056	Miles	$555903	$555903	HSIP (23 U.S.C. 148)	Rural	Major Collector	5,455	55	State Highway Agency	Systemic	Roadway Departure	
644092	Roadside	Barrier – cable	3.59999999999999	Miles	$75000	$75000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Interstate	33,868	70	State Highway Agency	Systemic	Roadway Departure	
2311018	Intersection geometry	Innovative Intersection (e.g. MUT, RCUT, QR)	3.6	Miles	$81000	$81000	HSIP (23 U.S.C. 148)	Rural	Principal Arterial-Other	18,517	65	State Highway Agency	Systemic		Intersection Improvements
5217017	Intersection geometry	Intersection realignment	3.8	Miles	$511407	$511407	HSIP (23 U.S.C. 148)	Rural	Major Collector	6,212	55	State Highway Agency	Spot		Intersection Improvements
9010405	Alignment	Horizontal and vertical alignment	4.173	Miles	$1290690	$1290690	HSIP (23 U.S.C. 148)	Rural	Minor Collector	2,391	55	State Highway Agency	Systemic	Roadway Departure	
5124010	Roadside	Drainage improvements	4.316	Miles	$810934	$810934	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,412	55	State Highway Agency	Systemic	Roadway Departure	
5191013	Roadway	Roadway - other	4.577	Miles	$18000	$18000	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	10,658	55	State Highway Agency	Systemic	Roadway Departure	
5303010	Roadway	Roadway - other	4.647	Miles	$1237500	$1237500	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,455	55	State Highway Agency	Systemic	Roadway Departure	
5261001	Alignment	Horizontal and vertical alignment	5.029	Miles	$1839384	$1839384	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,729	55	State Highway Agency	Systemic	Roadway Departure	
5318004	Roadway	Superelevation / cross slope	5.252	Miles	$1422580	$1422580	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,489	55	State Highway Agency	Systemic	Roadway Departure	
5059002	Roadway	Roadway - other	5.47	Miles	$84779	$84779	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,856	55	State Highway Agency	Systemic	Roadway Departure	

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5220001	Roadside	Roadside - other	5.673	Miles	$835232	$835232	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,933	55	State Highway Agency	Systemic	Roadway Departure	
5166019	Alignment	Horizontal curve realignment	5.874	Miles	$150000	$150000	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,844	55	State Highway Agency	Systemic	Roadway Departure	
5295002	Roadside	Roadside - other	5.95	Miles	$1422068	$1422068	HSIP (23 U.S.C. 148)	Rural	Major Collector	10,968	55	State Highway Agency	Systemic	Roadway Departure	
5007008	Roadside	Drainage improvements	6.21	Miles	$568066	$568066	HSIP (23 U.S.C. 148)	Rural	Major Collector	3,292	55	State Highway Agency	Spot	Roadway Departure	
9010432	Roadway	Roadway widening - travel lanes	6.668	Miles	$1000000	$1000000	HSIP (23 U.S.C. 148)	Rural	Minor Collector	668	55	State Highway Agency	Systemic	Roadway Departure	
5102015	Alignment	Horizontal and vertical alignment	6.827	Miles	$139500	$139500	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,984	55	State Highway Agency	Systemic	Roadway Departure	
5028001	Roadway	Roadway widening - add lane(s) along segment	7.2	Miles	$892174	$892174	HSIP (23 U.S.C. 148)	Rural	Major Collector	8,850	55	State Highway Agency	Systemic	Roadway Departure	
5361009	Roadside	Drainage improvements	7.21	Miles	$883423	$883423	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,207	55	State Highway Agency	Systemic	Roadway Departure	
5237004	Roadside	Drainage improvements	7.29	Miles	$489000	$489000	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,824	55	State Highway Agency	Systemic	Roadway Departure	
5071019	Roadside	Roadside - other	8.83	Miles	$623152	$623152	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,537	55	State Highway Agency	Systemic	Roadway Departure	
5105047	Roadway	Roadway - other	8.868	Miles	$2277000	$2277000	HSIP (23 U.S.C. 148)	Rural	Major Collector	4,247	55	State Highway Agency	Systemic	Roadway Departure	
5009024	Roadside	Drainage improvements	9.189	Miles	$249248	$249248	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	3,244	55	State Highway Agency	Systemic	Roadway Departure	
5074009	Roadside	Drainage improvements	9.417	Miles	$13500	$13500	HSIP (23 U.S.C. 148)	Rural	Major Collector	1,840	55	State Highway Agency	Systemic	Roadway Departure	

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5344009	Roadside	Drainage improvements	11.027	Miles	$345500	$345500	HSIP (23 U.S.C. 148)	Rural	Major Collector	2,665	55	State Highway Agency	Systemic	Roadway Departure	
51034	Shoulder treatments	Widen shoulder – paved or other (includes add shoulder)	11.761	Miles	$2165550	$2165550	HSIP (23 U.S.C. 148)	Rural	Minor Arterial	5,260	55	State Highway Agency	Systemic	Roadway Departure	
5357024	Roadside	Drainage improvements	25.654	Miles	$90000	$90000	HSIP (23 U.S.C. 148)	Rural	Major Collector	5,729	55	State Highway Agency	Systemic	Roadway Departure	
5105050	Roadway delineation	Wider Edge Lines (6 inch markings)	26	Miles	$538216	$538216	HSIP (23 U.S.C. 148)	Rural	Major Collector	4,247	55	State Highway Agency	Systemic	Roadway Departure	
9010425	Miscellaneous	Data collection	15100	Miles	$159250	$159250	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Data Analysis		Supports Implementation of HSIP and SHSP
9010521	Miscellaneous	Transportation safety planning	1	Numbers	$72900	$72900	HSIP (23 U.S.C. 148)	N/A	N/A	0			Data Analysis	Pedestrians	
9010033	Roadway signs and traffic control	Sign sheeting - upgrade or replacement	1	Numbers	$500000	$500000	HSIP (23 U.S.C. 148)	N/A	N/A	0			Systemic	Roadway Departure	
9010302	Miscellaneous	Data collection	24500	Miles	$45000	$45000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Data Analysis	Roadway Departure	
9010470	Miscellaneous	Data collection	1	Numbers	$1755000	$1755000	HSIP (23 U.S.C. 148)	Urban	Multiple/Varies	0			Data Analysis		Intersection Improvements
9010457	Roadway delineation	Raised pavement markers	40.363	Miles	$228850	$228850	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
9010460	Roadway delineation	Raised pavement markers	69.841	Miles	$262200	$262200	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
9010465	Roadway delineation	Raised pavement markers	99.432	Miles	$327290	$327290	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
9010467	Roadway delineation	Raised pavement markers	199.722	Miles	$352000	$352000	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Systemic	Roadway Departure	
9010477	Roadway signs and traffic control	Roadway signs (including post) - new or updated	23	Interchanges	$885645	$885645	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot		Intersection Improvements

2023 Kentucky Highway Safety Improvement Program

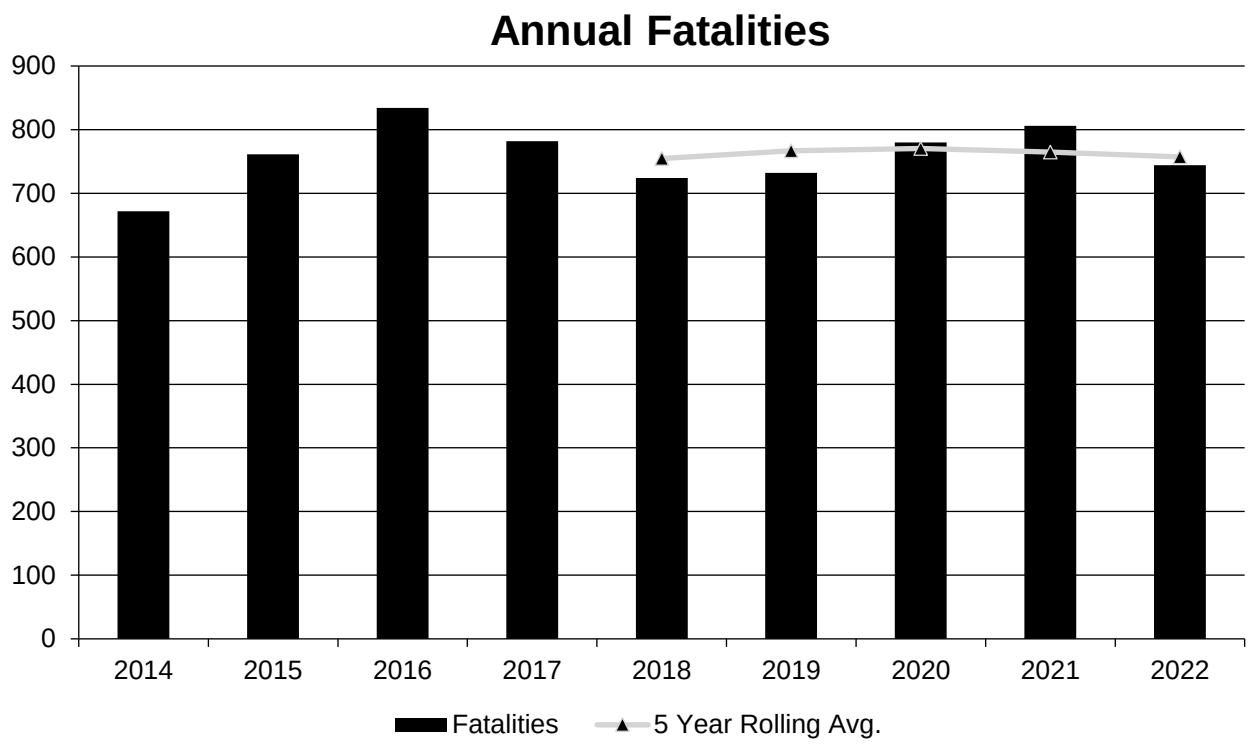
PROJECT NAME	IMPROVEMENT CATEGORY	SUBCATEGORY	OUTPUTS	OUTPUT TYPE	HSIP PROJECT COST($)	TOTAL PROJECT COST($)	FUNDING CATEGORY	LAND USE/AREA TYPE	FUNCTIONAL CLASSIFICATION	AADT	SPEED	OWNERSHIP	METHOD FOR SITE SELECTION	SHSP EMPHASIS AREA	SHSP STRATEGY
9010480	Roadway signs and traffic control	Roadway signs (including post) - new or updated	47	Interchanges	$894200	$894200	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot		Intersection Improvements
9010485	Roadway signs and traffic control	Roadway signs (including post) - new or updated	9	Interchanges	$690231	$690231	HSIP (23 U.S.C. 148)	Multiple/Varies	Multiple/Varies	0		State Highway Agency	Spot		Intersection Improvements

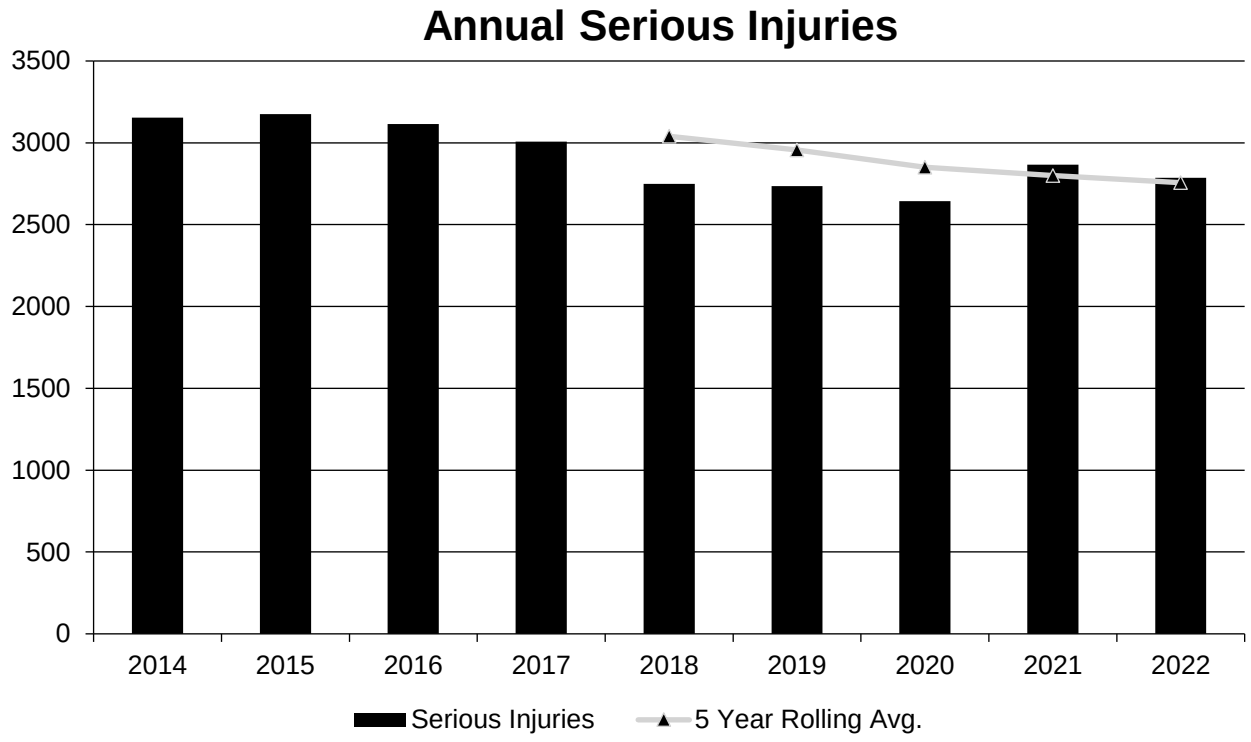
Safety Performance

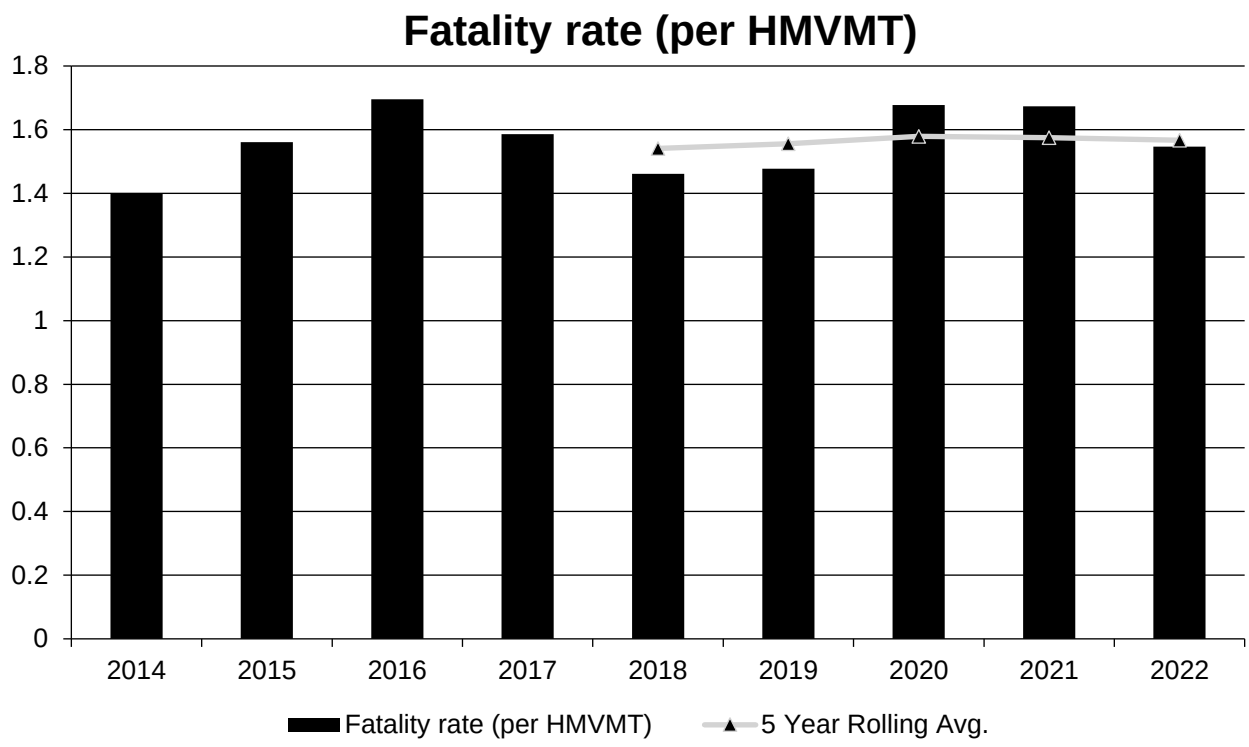
General Highway Safety Trends

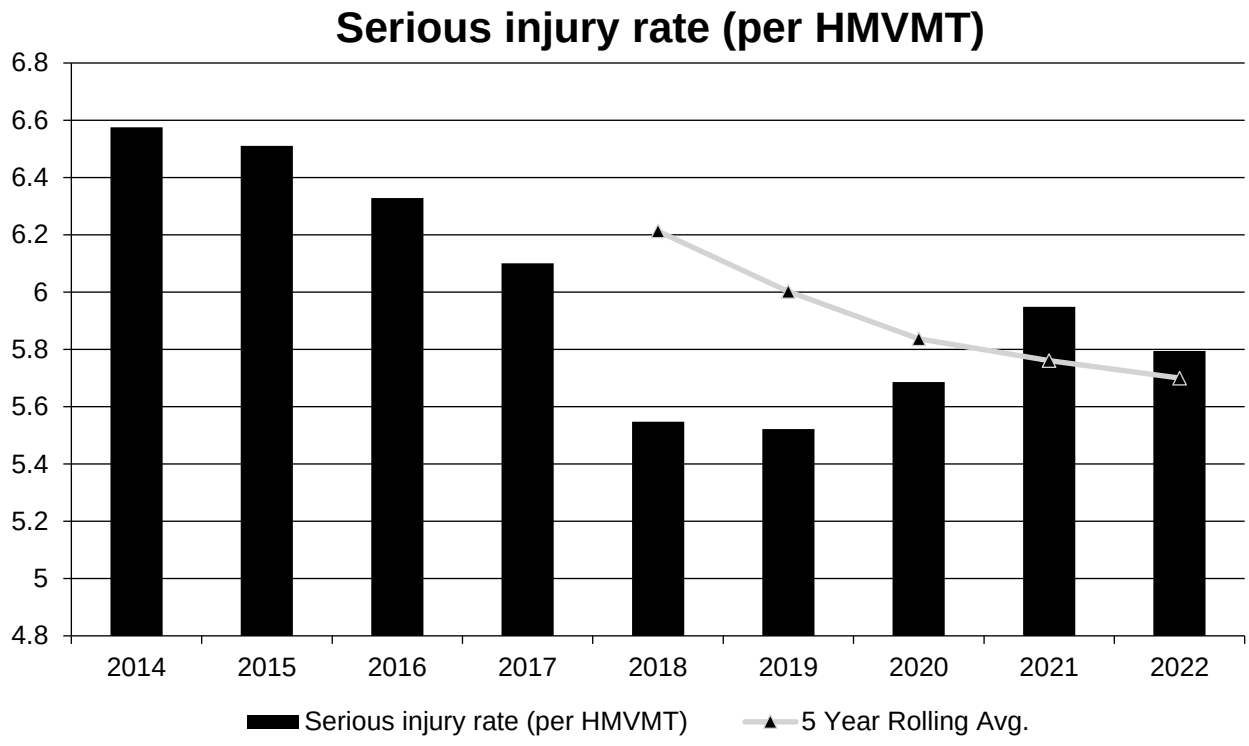
Present data showing the general highway safety trends in the State for the past five years.

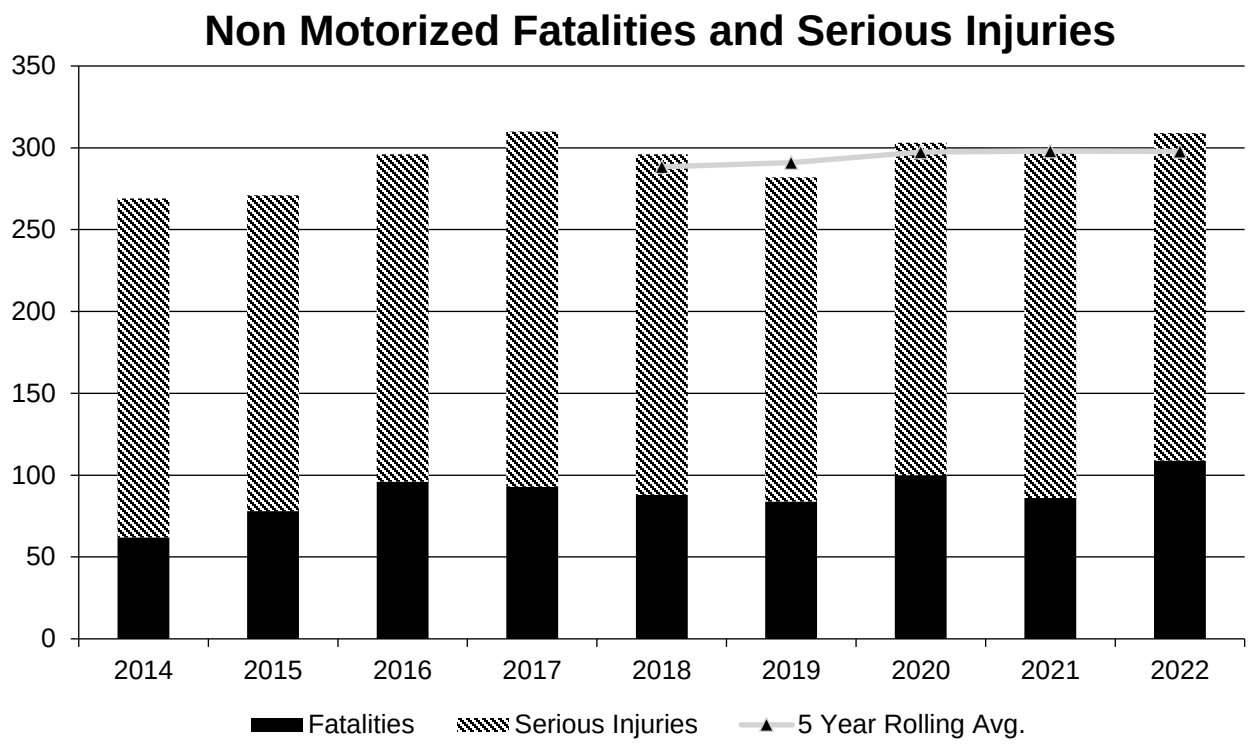
PERFORMANCE MEASURES	2014	2015	2016	2017	2018	2019	2020	2021	2022
Fatalities	672	761	834	782	724	732	780	806	744
Serious Injuries	3,154	3,175	3,114	3,008	2,749	2,736	2,644	2,867	2,787
Fatality rate (per HMVMT)	1.401	1.561	1.695	1.586	1.461	1.477	1.677	1.673	1.547
Serious injury rate (per HMVMT)	6.575	6.511	6.329	6.101	5.548	5.522	5.686	5.949	5.794
Number non-motorized fatalities	62	78	96	93	88	84	100	86	109
Number of non-motorized serious injuries	207	193	200	217	208	198	203	213	200
Number of non-motorized fatalities & serious injuries	269	271	296	310	296	282	303	299	309

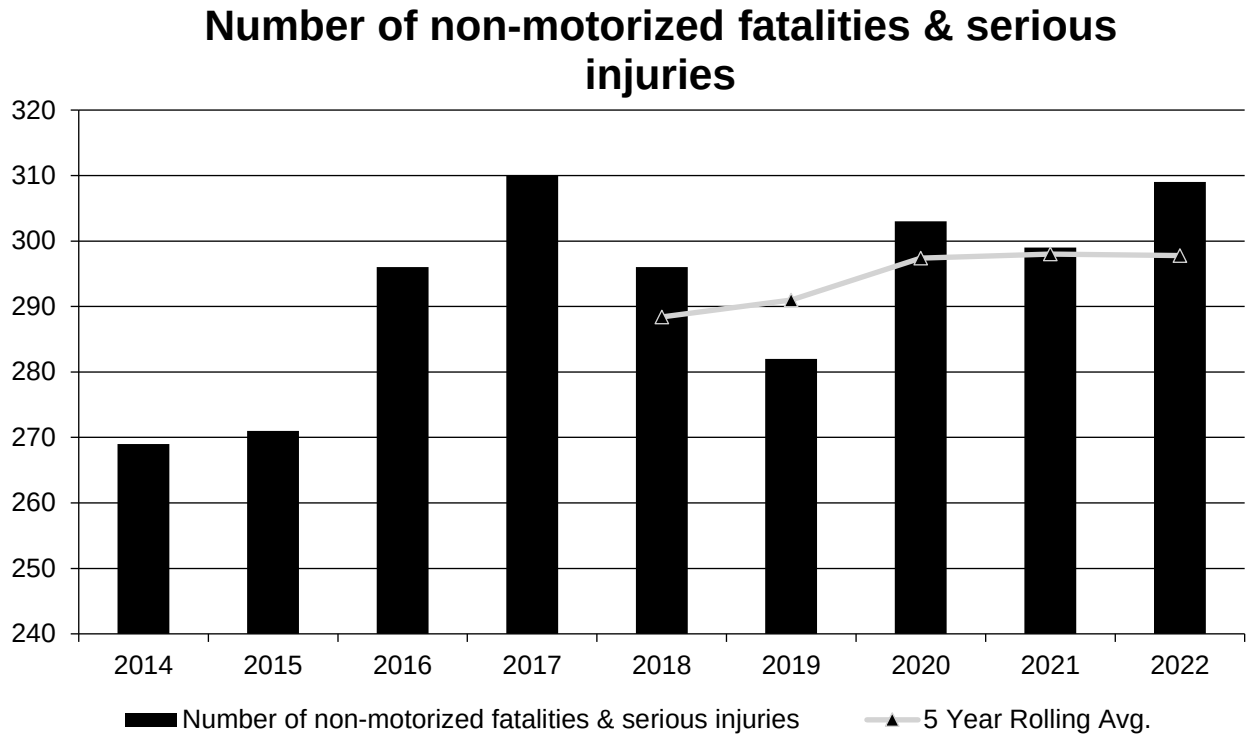

Annual Fatalities
900
800
700
600
500
400
300
200
100
0
2014
2015
2016
2017
2018
2019
2020
2021
2022
Fatalities
5 Year Rolling Avg.


Annual Serious Injuries
3500
3000
2500
2000
1500
1000
500
0
2014
2015
2016
2017
2018
2019
2020
2021
2022
Serious Injuries
5 Year Rolling Avg.


Fatality rate (per HMVMT)
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2014
2015
2016
2017
2018
2019
2020
2021
2022
Fatality rate (per HMVMT)
5 Year Rolling Avg.


Serious injury rate (per HMVMT)
6.8
6.6
6.4
6.2
6
5.8
5.6
5.4
5.2
5
4.8
2014
2015
2016
2017
2018
2019
2020
2021
2022
Serious injury rate (per HMVMT)
5 Year Rolling Avg.





Describe fatality data source.

FARS

To the maximum extent possible, present this data by functional classification and ownership.

Year 2022

Functional Classification	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Rural Principal Arterial (RPA) - Interstate	45.2	120.8	0.54	1.23
Rural Principal Arterial (RPA) - Other Freeways and Expressways				
Rural Principal Arterial (RPA) - Other	85	188.4	1.72	2.81
Rural Minor Arterial	86.4	263.8	2.41	5.16
Rural Minor Collector	69	261	3.27	8.37
Rural Major Collector	118.4	380	3.01	6.8
Rural Local Road or Street	35.2	135.4	1.56	3.86
Urban Principal Arterial (UPA) - Interstate	40	118	0.66	1.49
Urban Principal Arterial (UPA) - Other Freeways and Expressways	7.2	15.8	0.87	1.52
Urban Principal Arterial (UPA) - Other	80	305.8	1.8	4.85
Urban Minor Arterial	91	403.4	1.74	4.92
Urban Minor Collector				
Urban Major Collector	28.2	168.6	1.17	4.35
Urban Local Road or Street	12	59.6	0.77	3.45

Year 2022

Roadways	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
State Highway Agency	662.4	2,235.2	1.37	4.62
County Highway Agency	56.2	228.8		
Town or Township Highway Agency				
City or Municipal Highway Agency	36.6	245.6		
State Park, Forest, or Reservation Agency				
Local Park, Forest or Reservation Agency				
Other State Agency				
Other Local Agency				
Private (Other than Railroad)				
Railroad				
State Toll Authority				
Local Toll Authority				
Other Public Instrumentality (e.g. Airport, School, University)	3.8	14.6		
Indian Tribe Nation				

Safety Performance Targets

Safety Performance Targets

Calendar Year 2024 Targets *

Number of Fatalities:757.0

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet (KYTC) has set the target goal of 757 fatalities (5-year moving average) for calendar year 2024. Similar to the national trend, the 5-year moving average for the number of fatalities on Kentucky's public roads has mostly been increasing the last several years, after a historically low number of fatalities in calendar year 2013. This is possibly due to factors such as increased VMT and economic growth. A positive note is that the number of fatalities in calendar year 2022 was lower than calendar years 2021 and 2020. Regardless of current or past trends, KYTC remains committed to the reduction of fatalities throughout the Commonwealth of Kentucky. A target of 757 represents a reduction in total fatalities in calendar years 2023 and 2024 as compared to calendar years 2020, 2021, and 2022. This goal is shared with the HSP and reiterates KYTC's commitment to highway safety and the shared vision of Toward Zero Deaths.

Number of Serious Injuries:2644.0

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet (KYTC) has set the target goal of 2644 serious injuries (5-year moving average) for calendar year 2024. KYTC remains committed to the reduction of serious injuries throughout the Commonwealth of Kentucky. This target represents a reduction in total serious injuries in calendar years 2023 and 2024 as compared to calendar years 2020, 2021, and 2022. This goal is shared with the HSP and reiterates KYTC's commitment to highway safety.

Fatality Rate:1.560

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet (KYTC) has set the target goal of a 1.560 fatality rate (5-year moving average) for calendar year 2024. KYTC remains committed to the reduction of the fatality rate throughout the Commonwealth of Kentucky. This target represents a reduction in fatality rate in calendar years 2023 and 2024 as compared to calendar years 2020, 2021, and 2022. This goal is shared with the HSP and reiterates KYTC's commitment to highway safety and the shared vision of Toward Zero Deaths.

Serious Injury Rate:5.520

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet (KYTC) has set the target goal of a 5.520 fatality rate (5-year moving average) for calendar year 2024. KYTC remains committed to the reduction of the serious injury rate throughout the Commonwealth of Kentucky. This target represents a reduction in serious injury rate in calendar years 2023 and 2024 as compared to calendar years 2020, 2021, and 2022. This goal reiterates KYTC's commitment to highway safety.

Total Number of Non-Motorized Fatalities and Serious Injuries:297.0

Describe the basis for established target, including how it supports SHSP goals.

The Kentucky Transportation Cabinet (KYTC) has set the target goal of 297 non-motorized fatalities and serious injuries for calendar year 2024. KYTC remains committed to the reduction of non-motorized fatalities and serious injuries throughout the Commonwealth of Kentucky. This target represents a reduction in total non-motorized fatalities and serious injuries in calendar years 2023 and 2024 as compared to calendar years 2020, 2021, and 2022. This goal reiterates KYTC's commitment to highway safety and the shared vision of Toward Zero Deaths.

Describe efforts to coordinate with other stakeholders (e.g. MPOs, SHSO) to establish safety performance targets.

Staff within KYTC's Traffic Safety Branch and the Kentucky Office of Safety partner with KYTC's Division of Planning and MPOs to coordinate safety performance targets.

Does the State want to report additional optional targets?

No

Describe progress toward meeting the State's 2022 Safety Performance Targets (based on data available at the time of reporting). For each target, include a discussion of any reasons for differences in the actual outcomes and targets.

PERFORMANCE MEASURES	TARGETS	ACTUALS
Number of Fatalities	752.0	757.2
Number of Serious Injuries	2568.0	2756.6
Fatality Rate	1.535	1.567
Serious Injury Rate	5.241	5.700
Non-Motorized Fatalities and Serious Injuries	299.0	297.8

In regards to the 2022 safety performance targets, Kentucky met only one of the target safety performance measures: the target for non-motorized fatalities and serious injuries. Kentucky showed significant progress towards the remaining four safety performance measures, since the 2022 actual outcomes were lower than the 5-year average values for the 2018-2020 baseline comparison period. The four safety performance measures Kentucky made significant progress towards were Number of Fatalities, Number of Serious Injuries, Fatality Rate, and Serious Injury Rate. Based on this information, Kentucky met or made significant progress toward five of the five safety performance measures.

The primary reason for the 2022 actual outcomes not being lower than the 2022 targets for four of the safety performance measures is because Kentucky sets extremely aggressive safety performance targets. Similar to national trends over recent years, Kentucky's actual values for all of the safety performance measures have went up and down, with some years' actual values being slightly higher than the actual values prior to the recent years. In short, it is becoming increasingly challenging to see multi-year downward trends for all of the safety performance measures. Nevertheless, Kentucky established the 2022 safety targets at or just below the 2020 baseline values to show a strong commitment towards safety performance improvement, even though it was understood it would be very difficult to achieve 2022 actual values that would be lower than the values set for the 2022 safety targets.

Applicability of Special Rules

Does the VRU Safety Special Rule apply to the State for this reporting period?

No

Does the HRRR special rule apply to the State for this reporting period?

No

Provide the number of older driver and pedestrian fatalities and serious injuries 65 years of age and older for the past seven years.

PERFORMANCE MEASURES	2016	2017	2018	2019	2020	2021	2022
Number of Older Driver and Pedestrian Fatalities	196	198	189	218	166	196	223
Number of Older Driver and Pedestrian Serious Injuries	563	500	500,429	472	437	498	572

Evaluation

Program Effectiveness

How does the State measure effectiveness of the HSIP?

- Other-Initiative Basis

Kentucky's HSIP has not yet developed procedures for evaluating the effectiveness of the overall program. However, the effectives of several HSIP initiatives are evaluated using various methods, with the actual benefit-cost ratio achieved being the primary method Kentucky's HSIP relies on to decide whether to continue or discontinue an HSIP initiative.

Based on the measures of effectiveness selected previously, describe the results of the State's program level evaluations.

As previously stated, effectiveness is not currently determined for the overall program. Effectiveness at the initiative level is determined through benefit-cost ratios were applicable as seen below in the entry entitled Countermeasure Effectiveness Evaluations and in the Executive Summary. Current and previous benefit-cost analysis has shown positive return on investment for many of the initiatives analyzed.

What other indicators of success does the State use to demonstrate effectiveness and success of the Highway Safety Improvement Program?

- Increased awareness of safety and data-driven process
- Increased focus on local road safety
- More systemic programs
- Policy change

The most recent policy change is that KYTC now has new minimum requirements for wrong way signing and pavement markings along off ramps from freeways to surface streets. These new requirements are an enhancement that goes above the minimum requirements listed in the MUTCD. KYTC is also in the process of updating the Data Driven Safety Analysis (DDSA) Implementation Plan that was published in 2020.

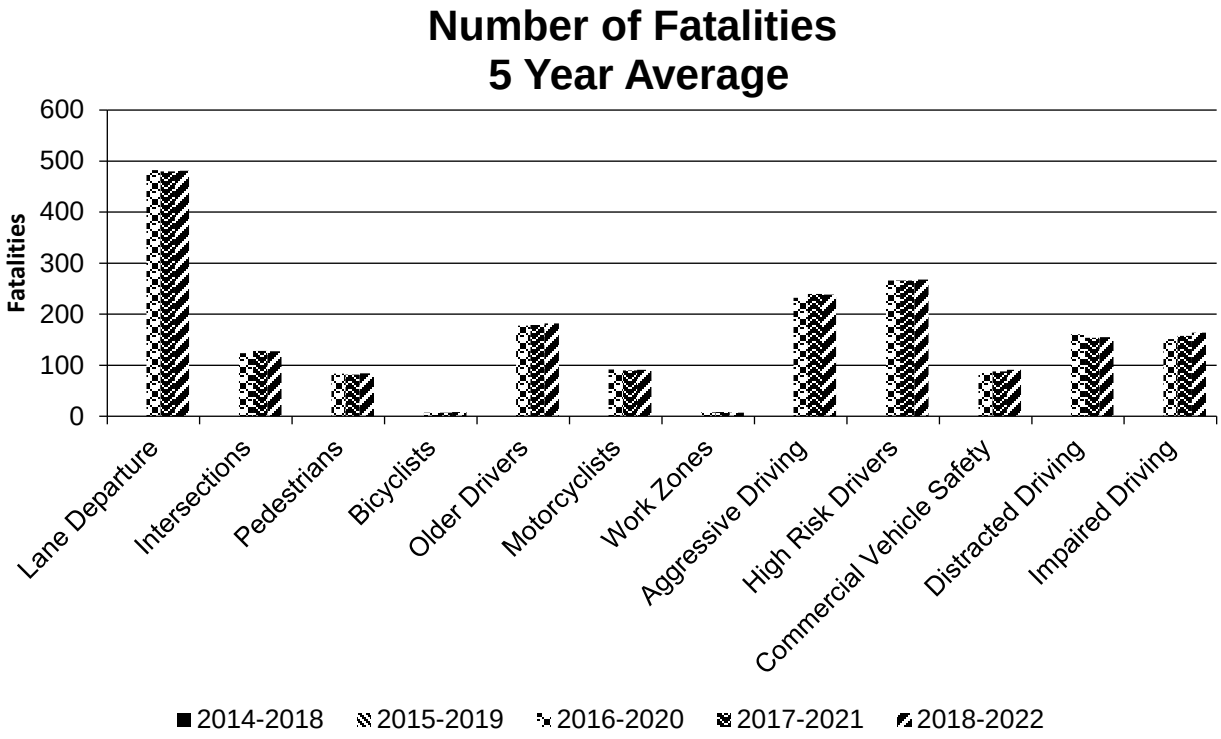
Effectiveness of Groupings or Similar Types of Improvements

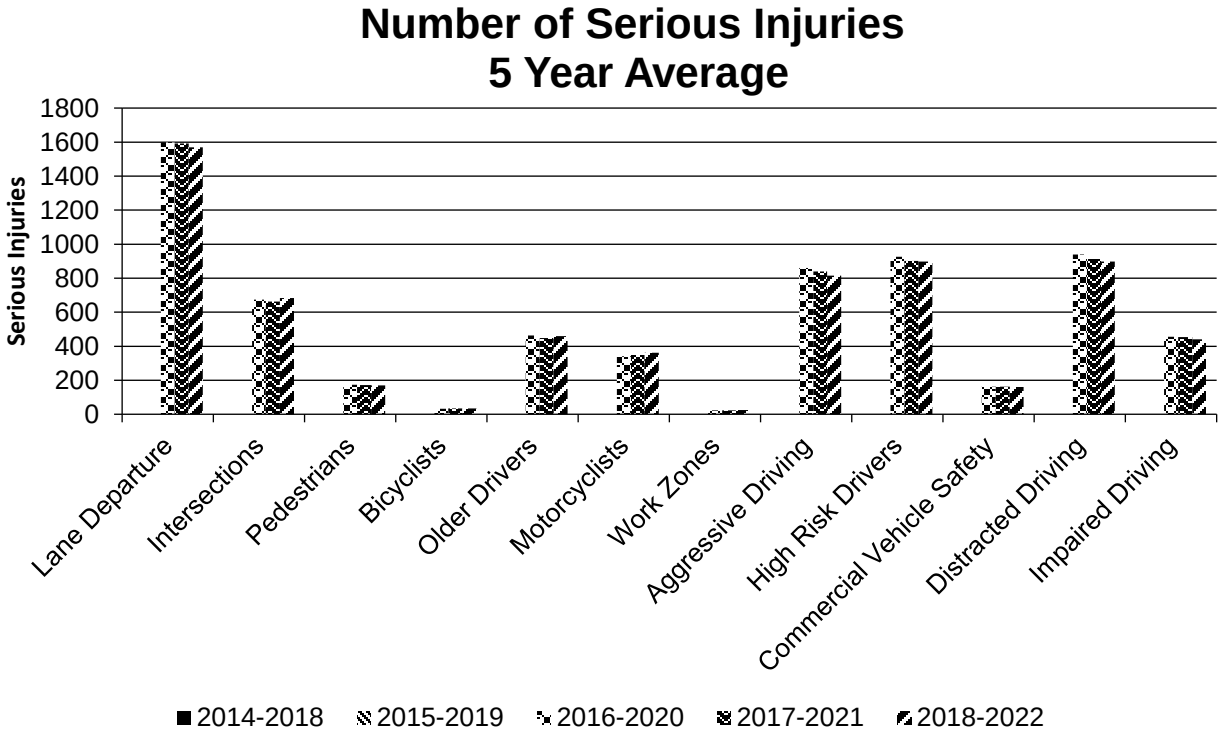
Present and describe trends in SHSP emphasis area performance measures.

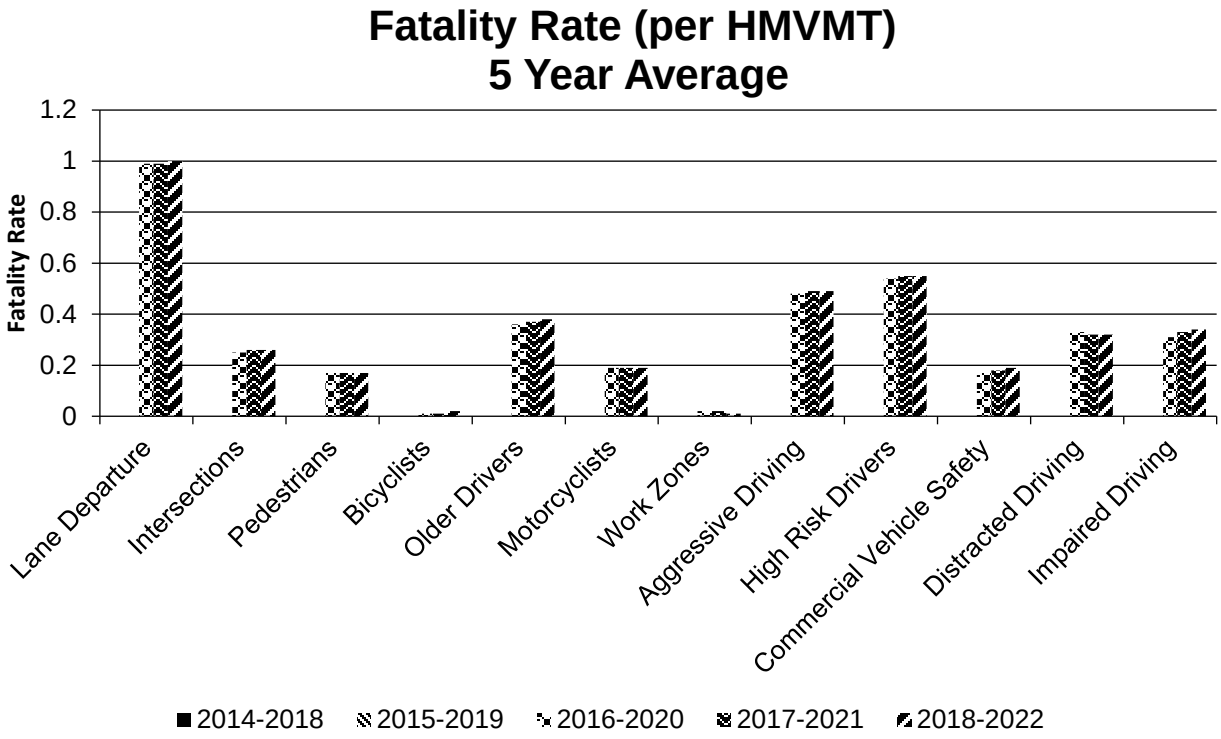
Year 2022

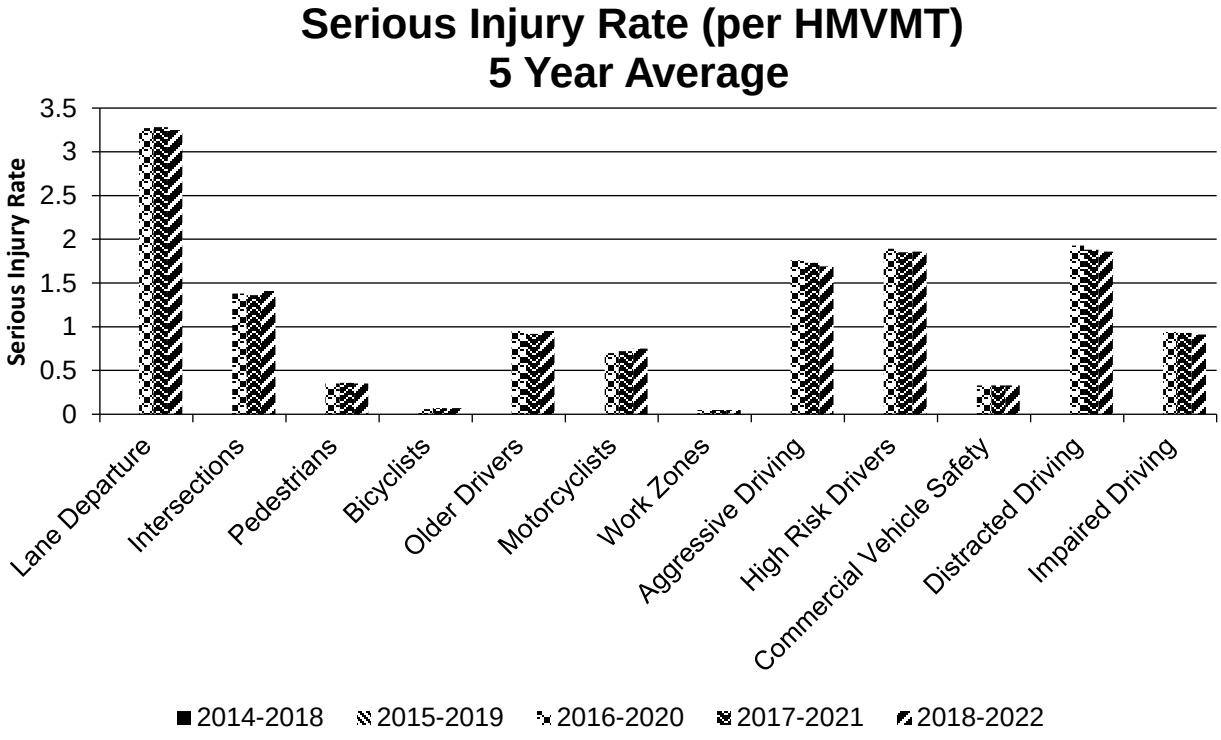
SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Lane Departure	Other (define)	481	1,569.4	1	3.25
Intersections	Intersections	127.2	683	0.26	1.41

SHSP Emphasis Area	Targeted Crash Type	Number of Fatalities (5-yr avg)	Number of Serious Injuries (5-yr avg)	Fatality Rate (per HMVMT) (5-yr avg)	Serious Injury Rate (per HMVMT) (5-yr avg)
Pedestrians	Vehicle/pedestrian	84	170.2	0.17	0.35
Bicyclists	Vehicle/bicycle	8.4	34	0.02	0.07
Older Drivers	Other (define)	182	459.2	0.38	0.95
Motorcyclists	Other (define)	91.2	361.4	0.19	0.75
Work Zones	Other (define)	7	24.8	0.01	0.05
Aggressive Driving	Other (define)	238.2	815	0.49	1.69
High Risk Drivers	Other (define)	267.8	897.8	0.55	1.86
Commercial Vehicle Safety	Truck-related	91	159.8	0.19	0.33
Distracted Driving	Other (define)	154.8	897.2	0.32	1.86
Impaired Driving	Other (define)	164	441	0.34	0.91


Number of Fatalities
5 Year Average
Fatalities
600
500
400
300
200
100
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Aggressive Driving
High Risk Drivers
Commercial Vehicle Safety
Distracted Driving
Impaired Driving
2014-2018
2015-2019
2016-2020
2017-2021
2018-2022


Number of Serious Injuries
5 Year Average
Serious Injuries
1800
1600
1400
1200
1000
800
600
400
200
0
Lane Departure
Intersections
Pedestrians
Bicyclists
Older Drivers
Motorcyclists
Work Zones
Aggressive Driving
High Risk Drivers
Commercial Vehicle Safety
Distracted Driving
Impaired Driving
2014-2018
2015-2019
2016-2020
2017-2021
2018-2022





Has the State completed any countermeasure effectiveness evaluations during the reporting period?

No

Effectiveness evaluations were performed and benefit/costs were calculated, with results presented for the following three types of systemic improvements:

GUARDRAIL

Wilcoxon Signed-Rank Test for "before and after shift in proportions of road departure crashes" – no statistically significant change.

Benefit/Cost analysis results using observed crashes; 9.30:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

HIGH-FRICTION SURFACE TREATMENTS

Wilcoxon Signed-Rank Test for "before and after shift in proportions of wet-weather road departure crashes" – no statistically significant change.

Benefit/Cost analysis results using expected crashes from empirical Bayes analysis; 4.65:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

SHOULDER WIDENING

Wilcoxon Signed-Rank Test for "before and after shift in proportions of road departure crashes" – no statistically significant change.

Benefit/Cost analysis results using observed crashes; 3.77:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

ROAD DEPARTURE CORRIDORS

Wilcoxon Signed-Rank Test for "before and after shift in proportions of road departure crashes" –statistically significant decrease at the 99% confidence level.

Benefit/Cost analysis results using observed crashes; 5.37:1 based on Comprehensive Cost of motor vehicle collisions (National Safety Council).

HSM methods are used to evaluate and calculate benefits and costs for systemic safety improvements (guardrail, high-friction surface treatments, shoulder widening, and road departure corridors).

Project Effectiveness

Provide the following information for previously implemented projects that the State evaluated this reporting period.

N/A

Compliance Assessment

What date was the State's current SHSP approved by the Governor or designated State representative?

03/26/2020

What are the years being covered by the current SHSP?

From: 2020 To: 2024

When does the State anticipate completing it's next SHSP update?

2024

Kentucky plans to update the SHSP during calendar year 2024 and the next SHSP will cover the years of 2025 to 2029.

Provide the current status (percent complete) of MIRE fundamental data elements collection efforts using the table below.

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
ROADWAY SEGMENT	Segment Identifier (12) [12]	100	100					100	100	100	100
	Route Number (8) [8]	100	100								
	Route/Street Name (9) [9]	100	100								
	Federal Aid/Route Type (21) [21]	100	100								
	Rural/Urban Designation (20) [20]	100	100					100	100		
	Surface Type (23) [24]	100	100					100	100		
	Begin Point Segment Descriptor (10) [10]	100	100					100	100	100	100
	End Point Segment Descriptor (11) [11]	100	100					100	100	100	100
	Segment Length (13) [13]	100	100								
	Direction of Inventory (18) [18]	100	100								
	Functional Class (19) [19]	100	100					100	100	100	100

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Median Type (54) [55]	100	100								
	Access Control (22) [23]	100	100								
	One/Two Way Operations (91) [93]	100	100								
	Number of Through Lanes (31) [32]	100	100					100	45		
	Average Annual Daily Traffic (79) [81]	100	100					100	3.67		
	AADT Year (80) [82]	100	100								
	Type of Governmental Ownership (4) [4]	100	100					100	100	100	100
INTERSECTION	Unique Junction Identifier (120) [110]			100	100						
	Location Identifier for Road 1 Crossing Point (122) [112]			100	100						
	Location Identifier for Road 2 Crossing Point (123) [113]			100	100						
	Intersection/Junction Geometry (126) [116]			100	100						
	Intersection/Junction Traffic Control (131) [131]			100	100						
	AADT for Each Intersecting Road (79) [81]			81	81						
	AADT Year (80) [82]			13	8						
	Unique Approach Identifier (139) [129]			100	100						
INTERCHANGE/RAMP	Unique Interchange Identifier (178) [168]					100	100				
	Location Identifier for Roadway at					100	100				

ROAD TYPE	*MIRE NAME (MIRE NO.)	NON LOCAL PAVED ROADS - SEGMENT		NON LOCAL PAVED ROADS - INTERSECTION		NON LOCAL PAVED ROADS - RAMPS		LOCAL PAVED ROADS		UNPAVED ROADS	
		STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE	STATE	NON-STATE
	Beginning of Ramp Terminal (197) [187]										
	Location Identifier for Roadway at Ending Ramp Terminal (201) [191]					100	100				
	Ramp Length (187) [177]					100	100				
	Roadway Type at Beginning of Ramp Terminal (195) [185]					100	100				
	Roadway Type at End Ramp Terminal (199) [189]					100	100				
	Interchange Type (182) [172]					100	100				
	Ramp AADT (191) [181]					85	100				
	Year of Ramp AADT (192) [182]					85	100				
	Functional Class (19) [19]					100	100				
	Type of Governmental Ownership (4) [4]					100	100				
Totals (Average Percent Complete):		**100.00**	**100.00**	**86.75**	**86.13**	**97.27**	**100.00**	**100.00**	**83.19**	**100.00**	**100.00**

*Based on Functional Classification (MIRE 1.0 Element Number) [MIRE 2.0 Element Number]

Describe actions the State will take moving forward to meet the requirement to have complete access to the MIRE fundamental data elements on all public roads by September 30, 2026.

The State will continue to collect the MIRE fundamental data elements on all public roads and is on-target to meet the deadline.

Optional Attachments

Program Structure:

HSIP Investment Plan.pdf
Project Implementation:

Safety Performance:

Evaluation:

Compliance Assessment:

Glossary

5 year rolling average: means the average of five individuals, consecutive annual points of data (e.g. annual fatality rate).

Emphasis area: means a highway safety priority in a State's SHSP, identified through a data-driven, collaborative process.

Highway safety improvement project: means strategies, activities and projects on a public road that are consistent with a State strategic highway safety plan and corrects or improves a hazardous road location or feature or addresses a highway safety problem.

HMVMT: means hundred million vehicle miles traveled.

Non-infrastructure projects: are projects that do not result in construction. Examples of non-infrastructure projects include road safety audits, transportation safety planning activities, improvements in the collection and analysis of data, education and outreach, and enforcement activities.

Older driver special rule: applies if traffic fatalities and serious injuries per capita for drivers and pedestrians over the age of 65 in a State increases during the most recent 2-year period for which data are available, as defined in the Older Driver and Pedestrian Special Rule Interim Guidance dated February 13, 2013.

Performance measure: means indicators that enable decision-makers and other stakeholders to monitor changes in system condition and performance against established visions, goals, and objectives.

Programmed funds: mean those funds that have been programmed in the Statewide Transportation Improvement Program (STIP) to be expended on highway safety improvement projects.

Roadway Functional Classification: means the process by which streets and highways are grouped into classes, or systems, according to the character of service they are intended to provide.

Strategic Highway Safety Plan (SHSP): means a comprehensive, multi-disciplinary plan, based on safety data developed by a State Department of Transportation in accordance with 23 U.S.C. 148.

Systematic: refers to an approach where an agency deploys countermeasures at all locations across a system.

Systemic safety improvement: means an improvement that is widely implemented based on high risk roadway features that are correlated with specific severe crash types.

Transfer: means, in accordance with provisions of 23 U.S.C. 126, a State may transfer from an apportionment under section 104(b) not to exceed 50 percent of the amount apportioned for the fiscal year to any other apportionment of the State under that section.